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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Anne E. Spinks	Art Unit: 1794
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Title:	LOW MELT FLOW COMPOSITION	

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SUBSTITUTE APPEAL BRIEF

Appellant submits the following brief in support of their Notice of Appeal, dated May 25, 2007, and in response to the outstanding Office Action dated February 27, 2007, and the Notification of Non-Compliant Appeal Brief dated November 28, 2007. This Substitute Appeal Brief corrects inadvertent clerical errors in the Status of the Claims and the Claims Appendix.

CERTIFICATE OF TRANSMISSION
I hereby certify under 37 CFR §1.8(a) that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, by EFS-Web, on December 10, 2007.

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I. Real Party In Interest

The real party in interest is H.B. Fuller Company.

II. Related Appeals and Interferences

There are no related appeals or interferences pending.

III. Status of Claims

Claims 1-20 are pending.

Claims 15 and 16 are allowed.

Claims 10, 11 and 17 are allowable if rewritten in independent form.

Claims 1-9, 12-14 and 18-20 stand rejected.

Claims 1-9, 12-14 and 18-20 are on appeal.

IV. Status of Amendments

The Amendment After Final submitted on April 26, 2007, has not been entered.

V. Summary of the Claimed Subject Matter

A summary of each independent claim and each dependent claim argued separately is provided below. The support listed for each claim is exemplary, as support for the claimed subject matter can be found in general throughout Appellant's Specification.

Claim 1 is directed to adsorbent composition that includes from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer, and from about 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, the composition being essentially free of a film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof, wherein the composition adsorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed (Appellant's Specification, page 1, lines 24-26, page 5, lines 13-15 and Table 1).

Claim 3 depends from claim 1 and further specifies that the composition exhibits a melt flow time of no greater than 60 seconds at 190°C (*Id.*, page 2, liens 5-6).

Claim 4 depends from claim 1 and further specifies that the composition exhibits a melt flow time of no greater than 15 seconds at 190°C (*Id*).

Claim 5 depends from claim 1 and further specifies that the composition exhibits a melt flow time of less than 5 seconds at 190°C (*Id*).

Claim 6 depends from claim 1 and further specifies that the composition includes from about 40 % by weight to about 70 % by weight adsorbent (*Id.*, page 1, lines 30-31).

Claim 8 depends from claim 1 and further specifies that the composition, when applied to a substrate and subjected to 88°C for one month, is essentially free from sag (*Id.*, page 4, lines 5-9).

Claim 9 depends from claim 1 and further specifies that the composition passes the ASTM E1887 fog test (*Id.*, page 3, lines 28-30).

Claim 12 is directed to an absorbent composition consisting essentially of from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer, from about 20 % by weight to about 70 % by weight of an adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, from 0 to 10 % by weight tackifying resin, and from 0 to 5 % by weight antioxidant, wherein the

composition absorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed (*Id.*, page 2, lines 14-18 and Table 1).

Claim 13 depends from claim 12 and is directed to an absorbent composition that consists essentially of from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer and from about 20 % by weight to about 70 % by weight of an adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, wherein the composition absorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed (*Id.*, page 2, lines 14-19).

Claim 14 is directed to an adsorbent composition that includes amorphous polyalphaolefin polymer; and from about 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, the composition being essentially free of a film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof, wherein the composition adsorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed (*Id.*, page 1, lines 24-26 and page 2, lines 24-25).

Claim 18 depends from claim 1 and further specifies that the absorbent includes at least one of chabasite, gumerinite, levynite, erinite, mordenite and analcite (*Id.*, page 1, lines 24-26, page 5, lines 13-17, and Table 1).

Claim 19 depends from claim 1 and further specifies that the absorbent includes an alkali metal alumino-silicate (*Id.*, page 5, lines 19-21).

VI. Grounds for Rejection to be Reviewed on Appeal

Whether claim 14 is patentable under 35 U.S.C. § 102(e) over U.S. 5,851,609 (Baratuci et al.)?

Whether claims 1, 2, 7, 12, 13 and 14 are patentable under 35 U.S.C. § 102(b) over U.S. 5,569,516 (Paeglis et al.)?

Whether claims 3-6, 8 and 9 are patentable under 35 U.S.C. § 103 over Paeglis et al.?

Whether claims 18-20 are patentable under 35 U.S.C. § 103 over Paeglis et al. in view of the Appellant's discussion of the prior art "ADPA" at page 5, lines 10-25 of Appellant's Specification?

VII. Argument

Rejections under 35 U.S.C. § 102

Claim 14 is patentable under 35 U.S.C. § 102(e) over U.S. 5,851,609 (Baratuci et al.).

Baratuci et al. disclose a composite structure that includes a preformed flexible laminate that includes a spacer element embedded within a core material (Baratuci et al., Abstract). The core material includes from about 25 % by weight to about 85 % by weight filler (*Id.*, col., 4, lines 52-55). The core material also includes desiccant in an amount from about 5 % by weight to about 50 % by weight in the core material (*Id.*, col., 5, lines 16-18). Baratuci et al. further explain that a portion of the core may be a preformed foam such as a urethane foam, high or low density polyethylene, rubber modified polystyrene, or polystyrene modified with polyethylene (*Id.*, col., 5, lines 50-54). According to Baratuci et al., the remainder of the core and often all of the core is a compounded substantially amorphous polymer (*Id.*, lines 54-56). Baratuci et al. explain

> Although isobutylene based polymers such as polyisobutylene and butyl rubber are preferred due to their low MVT, other polymer may be used instead of or in addition to isobutylene based polymers.... Examples of other polymers include ethylene-propylene polymer, ethylene-propylene diene polymer (EPDM), ethylene-vinyl acetate, acrylic rubber, neoprene rubber, chlororsulfonated polyethylene, urethane, epoxy, natural rubber, polymer from conjugated dienes such as synthetic polyisoprene polybutadiene, nitrile rubber or styrene butadiene rubber, and amorphous polyolefins (e.g., homopolymer or copolymer of propene along with other monoolefins or diolefins having from 2 to 10 carbon atoms and having less than 20 wt. % crystallinity as polymers and being other than EPDM and ethylene-propylene polymer).

Id., col. 5, line 56-col. 6, line 5.

Claim 14 is directed to an adsorbent composition that includes amorphous polyalphaolefin polymer and from about 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, the composition being essentially free of a film forming agent selected from the group consisting of butyl rubber, polyisobutylene and

combinations thereof, wherein the composition adsorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed. Baratuci et al. do not teach an actual composition that includes 1) both amorphous polyalphaolefin polymer and from about 20 % by weight to about 70 % by weight adsorbent, and 2) is essentially free from butyl rubber and polyisobutylene. Baratuci et al. disclose that the remainder of their core composition is a compounded substantially amorphous polymer (Baratuci et al., lines 54-56). Baratuci et al. include amorphous polyolefins in their long list of "other polymers" (see, e.g., *Id.*, col. 5, line 62-col. 6, line 1). Baratuci et al. do not, however, expressly teach selecting amorphous polyalphaolefin for use in a composition that is essentially free of butyl rubber and polyisobutylene. To the contrary, Baratuci et al. disclose that amorphous polyalphaolefins are often used in combination with polyisobutylene and/or butyl rubber, and further specify that the weight ratio of amorphous polyalphaolefins to polyisobutylene and/or butyl rubber is desirably from 1:8 to 8:1 and more desirably from 1:4 to 4:1 (*Id.*, col. 6, lines 27-31). In addition, Baratuci et al. disclose, "A preferred composition for the core material(s) is from about 5 to about 15 wt. % isobutylene based polymers, [and] from about 5 to about 15 wt. % amorphous polyalphaolefin" (*Id.*, col. 6, lines 65-67). Baratuci et al. thus direct the skilled artisan to include isobutylene-based polymers in compositions that include amorphous polyalphaolefins. Therefore, in order to arrive at a composition that includes amorphous polyalphaolefin polymer and is essentially free from butyl rubber and polyisobutylene, the skilled artisan would have to make a series of selections. In particular, the skilled artisan would have to select amorphous polyalphaolefin polymers from the many different classes of polymers disclosed in Baratuci et al., and then decide to exclude butyl rubber and polyisobutylene from the composition, which is in direct contradiction to the express teaching of Baratuci et al. The mere fact that the skilled artisan would have to make these selections demonstrates that Baratuci et al. do not teach the composition of claim 14. Moreover, because Baratuci et al. teach away from such a composition, the skilled artisan would refrain from making the requisite selections. Appellant submits, therefore, that the rejection of claim 14 under 35 U.S.C. § 102(e) over Baratuci et al. is unwarranted and respectfully request that it be overruled.

Claims 1, 2, 7, 12, 13 and 14 are patentable under 35 U.S.C. § 102(b) over U.S. 5,569,516 (Paeglis et al.).

Paeglis et al. disclose copolymers of ethylene and alpha-olefins and ethylene/propylene copolymer rubbers (Paeglis et al., col. 1, lines 6-7). Paeglis et al. further disclose a thermoplastic elastomer that consists essentially of a copolymer that includes a mixture of ethylene, one or more alpha-olefin, and optionally, a diene (*Id.*, Abstract). Paeglis et al. further disclose that the copolymers can include from about 60 % by weight to 90 % by weight ethylene and 10 % by weight to 40 % by weight propylene or other alpha-olefin based on the weight of the copolymer (*Id.*, col. 5, lines 39-43). Paeglis et al. also disclose that single ply roofing membranes formed from their thermoplastic elastomers can include an oil adsorbent filler when the membrane also includes a large amount of plasticizer oil, e.g., 60 parts per 100 parts elastomer (*Id.*, col. 8, lines 27-34). The oil adsorbent filler is included to reduce or eliminate bleed-out from the plasticizer oil (*Id.*).

Claim 1 is directed to an adsorbent composition that includes from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer, and from 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, the composition being essentially free of film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof, wherein the composition adsorbs at least one of moisture and volatile organic species from the atmosphere to which it is exposed. Paeglis et al. do not teach a composition that adsorbs at least one of moisture and volatile organic species from the atmosphere to which it is exposed. The February 27, 2007 Office action takes the position that the disclosure at column 8, lines 27-40 of Paeglis et al. describes an adsorbent of volatile organic materials and indicates that oils are inherently volatile organic materials. As a preliminary matter, the adsorbent disclosed at the above-referenced location in Paeglis et al. is for adsorbing oil present in the Paeglis et al. composition. There is no evidence of record that all oils are inherently volatile. The May 7, 2007 Advisory action takes the position, "oils are deemed inherently volatile in nature" (May 7th Advisory action, continuation sheet, second paragraph). It is not appropriate for an Office action to assert that a fact is well known without citing a prior

art reference that instantly and unquestionably demonstrates that the facts are well-known. See, e.g., *In re Zurko*, 258 F.3d 1379, 1385, 59 U.S.P.Q.2d at 1697 (It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record being the principal evidence upon which the rejection is based. The Office action cannot reach conclusions based on the Examiner's own understanding or experience --or on his or her assessment of what would be basic knowledge or common sense. Rather, the Office action must point to some concrete evidence in the record in support of these findings). In addition, when an examiner relies on a scientific theory, evidentiary support for the existence and meaning of that theory must be provided. M.P.E.P. 2144(02) *citing In re Grose*, 592 F.2d 1161, 201 U.S.P.Q. 57 (CCPA 1979)"[W]hen the PTO seeks to rely upon a chemical theory . . . it must provide evidentiary support for the existence and meaning of that theory."); *In re Eynde*, 480 F.2d 1364, 1370, 178 U.S.P.Q. 470, 474 (CCPA 1973) ("[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice"). Here the record does not include any evidence establishing that oils are inherently volatile. Accordingly, the Examiner has not carried his burden and has not established a *prima facie* case of anticipation. For this reason alone, the rejection of claim 1 under 35 U.S.C. § 102(b) over Paeglis et al. is unwarranted and Appellants respectfully request that it be overruled.

The rejection of claim 1 under 35 U.S.C. § 102(b) over Paeglis et al. is further deficient for at least the following additional reasons. Appellant's claim 1 requires the composition to have the ability to adsorb at least one of moisture and volatile organic species from the atmosphere to which it is exposed. Paeglis et al. do not teach that their roofing membrane composition is able to adsorb at least one of moisture and volatile organic species from the atmosphere to which it is exposed; nor is the roofing membrane of Paeglis et al. inherently able to adsorb at least one of moisture and volatile organic species from the atmosphere to which it is exposed. Paeglis et al. explain that the kaolin clay or oil adsorbing polymers are introduced into their roofing membrane composition in sufficient amounts to adsorb the oil in the formulation (see, Paeglis et al., col. 8, lines 27-40). In other words, Paeglis et al. disclose that the kaolin clay or oil adsorbing polymer

adsorbs the oil present in the roofing membrane composition --not an atmosphere to which the membrane is exposed. In addition, Paeglis et al. do not teach that the kaolin clay or oil adsorbing polymer is available to absorb moisture or a volatile organic species from the atmosphere to which the roofing membrane composition is exposed or that they can absorb moisture or a volatile organic species from an atmosphere when present in the roofing membrane composition. Paeglis et al., therefore, do not expressly or inherently teach a composition that includes each of the components of claim 1 and is able to adsorb at least one of moisture and volatile organic species from the atmosphere to which it is exposed. Accordingly the rejection of claim 1 under U.S.C. § 102(b) over Paeglis et al. is unwarranted and Appellant submits that it must be overruled.

The February 27th Office action takes the position that the roofing membrane composition of Paeglis et al. itself constitutes the atmosphere to which the kaolin clay or oil adsorbing polymer is exposed (see, Paeglis et al., page 6, para. 11). This logic is not sound. If it is assumed that the roofing membrane composition of Paeglis et al. is the atmosphere to which the kaolin clay is exposed, then there is no composition that includes from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer and from 20 % by weight to about 70 % by weight adsorbent, because such an interpretation removes the kaolin clay from the roofing membrane composition and renders it its own composition. Under this scenario Paeglis et al. also fail to anticipate claim 1, because a required element of claim 1, i.e., from 20 % by weight to about 70 % by weight adsorbent, is absent from the Paeglis et al. composition that includes an amorphous polyalphaolefin polymer. For at least this additional reason, a *prima facie* case of anticipation of claim 1 over Paeglis et al. has not been shown. Accordingly, the rejection of claim 1 under U.S.C. § 102(b) over Paeglis et al. is unwarranted and must be overruled.

Claims 2, 7 and 12-14 are distinguishable under U.S.C. § 102(b) over Paeglis et al. for at least the same reasons as set forth above in distinguishing claim 1.

Claim 13

Claim 13 is further distinguishable under U.S.C. § 102(b) over Paeglis et al. for at least the following additional reasons. Claim 13 is directed to an absorbent composition

that consists essentially of from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer and from about 20 % by weight to about 70 % by weight of an adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, wherein the composition absorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed. All of the compositions of Paeglis et al. that include oil adsorbing mineral filler or oil adsorbing polymers also include plasticizer oil (see, e.g., Paeglis et al., col. 8, lines 27-40). Moreover, an oil adsorbing mineral filler or oil adsorbing polymers is only present in the Paeglis et al. composition when the plasticizer oil is present "in large amounts, e.g., 60 parts by weight per 100 parts by weight elastomer or more" (*Id.*, lines 27-29). Paeglis et al. thus do not teach a composition that consists essentially of from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer and from about 20 % by weight to about 70 % by weight of an adsorbent. Nothing in the record establishes anything to the contrary. Accordingly, the rejection of claim 13 under U.S.C. § 102(b) over Paeglis et al. is unwarranted, and Appellant respectfully requests that it be overruled.

Rejections under 35 U.S.C. § 103

Claims 3-6, 8 and 9 stand rejected under 35 U.S.C. § 103 over Paeglis et al.

Claims 3-5

Claim 3 depends from claim 1 and further specifies that the composition exhibits a melt flow time of no greater than 60 seconds at 190°C. Claim 4 depends from claim 1 and further specifies that the composition exhibits a melt flow time of no greater than 15 seconds at 190°C. Claim 5 depends from claim 1 and further specifies that the composition exhibits a melt flow time of less than 5 seconds at 190°C. To establish a *prima facie* case of obviousness based on a single prior art reference, there must be some reason for modifying that prior art reference. See, e.g., *KSR Int'l Co. v. Teleflex,* 550 U.S. _____ (2007) ("[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does"). "[A]ny need or problem known in the field of

endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." *KSR Int'l Co. v. Teleflex.* In addition, a reason can be demonstrated through a teaching, suggestion or motivation for making the proposed modification. See, e.g., *Id.* However, the teaching, suggestion or motivation cannot come from Appellant's specification. See, e.g., *In re Dance*, 160 F.3d 1339, 1343 (Fed. Cir. 1998); *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1138 (Fed. Cir. 1985).

Here there is no such reason, teaching, suggestion or motivation. The deficiencies of Paeglis et al. set forth above in distinguishing claim 1 under 35 U.S.C. § 102 over Paeglis et al. are incorporated herein and are sufficient by themselves to render the rejection of claims 3-5 under 35 U.S.C. § 103 over Paeglis et al. unwarranted. The rejection is further deficient because the disclosure in Paeglis et al. pertaining to kaolin clay or oil adsorbing polymers being introduced into a roofing membrane composition in sufficient amounts to adsorb the oil is specific to a roofing membrane composition. There is no evidence of record that a roofing membrane composition, in general, or the roofing membrane composition of Paeglis et al., in particular, inherently exhibits a melt flow time of no greater than 60 seconds at 190°C. In addition, nothing in Paeglis et al. teaches or suggests that a roofing membrane composition should exhibit any particular melt flow time –let alone a melt flow time of no greater than 60 seconds at 190°C. Accordingly, the skilled artisan would have no reason to modify the roofing membrane composition of Paeglis et al. to achieve a melt flow time of no greater than 60 seconds at 190°C.

The fact that Paeglis et al. disclose that their thermoplastic elastomers can have flow indices in the range of about 0.1 to 100 (no units are provided) at 190°C and that they can be used in glazing is of no moment (see, Paeglis et al., col. 6, lines 64-67). A melt flow index is the weight of polymer in grams that flows through a capillary having a specific diameter and length by a pressure applied via a prescribed gravimetric weight for a prescribed temperature over a period of 10 minutes. The melt flow time referred to in Appellants Specification is the amount of time it takes for a 6-8 gram sample to flow out of the orifice of a Kayness D7031 Melt Flow Apparatus at 190°C using a 1100 gram weight (see Appellant's Specification, page 7, lines 1-5). Paeglis et al. do not teach or

suggest a melt flow time of a composition that includes adsorbent –let alone amorphous polyalphaolefin polymer and from 20 % by weight to about 70 % by weight adsorbent. Moreover, the only composition in Paeglis et al. that includes adsorbent is the roofing membrane composition. Paeglis et al. do not teach or suggest a melt flow index or a melt flow time for their roofing membrane composition or that such properties are important to their roofing membrane composition. Accordingly, for at least these additional reasons, Paeglis et al. fail to render obvious the compositions of claims 3-5. Appellant submits, therefore, that the rejection of claim 3 under 35 U.S.C. § 103 over Paeglis et al. is unwarranted and respectfully request that it be overruled.

Claims 4 and 5 are distinguishable under 35 U.S.C. § 103 over Paeglis et al. for at least the same reasons set forth above in distinguishing claim 3.

Claim 6

Claim 6 depends from claim 1 and further specifies that the composition includes from about 40 % by weight to about 70 % by weight adsorbent. The deficiencies of Paeglis et al. set forth above in distinguishing claim 1 are incorporated herein and are sufficient by themselves to render the rejection of claim 6 under 35 U.S.C. § 103 over Paeglis et al. unwarranted. The Paeglis et al. reference is further deficient for at least the following additional reasons. Paeglis et al. do not teach or suggest including from about 40 % by weight to about 70 % by weight adsorbent in an adsorbent composition. Rather, Paeglis et al. disclose that the maximum amount of kaolin clay or oil adsorbing polymer that can be introduced in their roofing membrane composition is from 31 % (i.e., [(120*60)/100]/ [[(120*60)/100] + 60+ 100] (see, Paeglis et al., col. 8, lines 27-38). Paeglis et al. thus fail to teach or suggest a required element of the composition of claim 6. Appellant submits, therefore, that a *prima facie* case of obviousness of claim 6 has not been made, and the rejection of claim 6 under 35 U.S.C. § 103 over Paeglis et al. must be overruled for at least this additional reason.

Claim 8

Claim 8 depends from claim 1 and further specifies that the composition, when applied to a substrate and subjected to 88°C for one month, is essentially free from sag.

The deficiencies of Paeglis et al. set forth above in distinguishing claim 1 are incorporated herein and are sufficient by themselves to render the rejection of claim 8 under 35 U.S.C. § 103 over Paeglis et al. unwarranted. The rejection is further deficient in that Paeglis et al. do not teach or suggest a composition that includes amorphous polyalphaolefin polymer and from 20 % by weight to about 70 % by weight adsorbent and is essentially free from sag. Sag is measured according to the Sag Test Procedure (see, Appellant's Specification, page 7, lines 7-11). The sag test includes aligning a film on a tin plated steel substrate, heating the construction in an oven to adhere the film to the substrate, cooling the substrate, and then hanging the construction vertically in an oven at 190°F (88°C) (see, *Id.*). The only composition in Paeglis et al. that includes adsorbent is the roofing membrane composition. Paeglis et al. provide no evidence that a roofing membrane composition, in general, or the roofing membrane composition of Paeglis et al., in particular, is inherently free from sag when subjected to 88°C for one month. In addition, nothing in Paeglis et al. teaches or suggests that a roofing membrane composition should exhibit any particular amount of sag –let alone that it should be essentially free from sag when subjected to 88°C for one month. Paeglis et al. also do not teach that such a property is important to their roofing membrane composition. Therefore, the skilled artisan would have no reason to attempt to modify the roofing membrane composition of Paeglis et al. to achieve a composition that is essentially free from sag after being subjected to 88°C for one month, and further would not think to do so.

The fact that Paeglis et al. disclose that their thermoplastic elastomer can be used in glazing is of no moment. As demonstrated above, Paeglis et al. do not teach or suggest using their roofing membrane composition in glazing nor do they not teach or suggest using a composition that includes an amorphous polyalphaolefin polymer and an adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, in glazing. Accordingly, the skilled artisan would have no reason to attempt to formulate the composition of claim 8 from the disclosure of Paeglis et al. and further would have no clue as to how to do so. Appellant submits, therefore, that the rejection of claim 8 under 35 U.S.C. § 103 over Paeglis et al. is unwarranted and respectfully requests that it be overruled.

Claim 9

Claim 9 depends from claim 1 and further specifies that the composition passes the ASTM E1887 fog test. The deficiencies of Paeglis et al. set forth above in distinguishing claim 1 are incorporated herein and are sufficient by themselves to render the rejection of claim 9 under 35 U.S.C. § 103 over Paeglis et al. unwarranted. The rejection is further deficient in that the disclosure in Paeglis et al. pertaining to kaolin clay or oil adsorbing polymers being introduced into a roofing membrane composition in sufficient amounts to adsorb the oil is specific to a roofing membrane composition. Paeglis et al. contains no evidence that a roofing membrane composition, in general, or the roofing membrane composition of Paeglis et al., in particular, inherently passes the ASTM E1887 fog test. Moreover, nothing in Paeglis et al. teaches or suggests that a roofing membrane composition should pass the ASTM E1887 fog test. Accordingly, the skilled artisan would have no reason to attempt to modify the roofing membrane composition of Paeglis et al. to achieve a composition that passes the ASTM E1887 fog test.

The fact that Paeglis et al. disclose that their thermoplastic elastomer can be used in glazing is of no moment. The Paeglis et al. thermoplastic elastomer does not contain an adsorbent –let alone a moisture adsorbent or a volatile organic adsorbent. Only the roofing membrane composition of Paeglis et al. is described as optionally including oil adsorbing mineral fillers such as kaolin clay or oil adsorbing polymer such as EPDM. However, Paeglis et al. do not teach or suggest using their roofing membrane composition in glazing nor do they not teach or suggest using a composition that includes an amorphous polyalphaolefin polymer and an adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, in glazing. Accordingly, the skilled artisan would have no reason to attempt to formulate a composition that passes the ASTM E1887 fog test from the disclosure of Paeglis et al. and further would have no clue as to how to do so. Appellant submits, therefore, that the rejection of claim 9 under 35 U.S.C. § 103 over Paeglis et al. is unwarranted and respectfully requests that it be overruled.

Claims 18-20

Claims 18-20 stand rejected under 35 U.S.C. § 103 over Paeglis et al. in view of a passage from Appellant's Specification referred to in the February 27th Office action as "applicant's discussion of the prior art."

The discussion of Paeglis et al. set forth above is incorporated herein.

The February 27th Office action points to page 5, lines 10-25 of Appellant's Specification as disclosing that the absorbents of claims 18-20 are commercially available. The referenced portion of Appellant's Specification reads as follows:

> The adsorbent of the composition is capable of adsorbing molecules present in the atmosphere to which the adsorbent is exposed. The adsorbent is selected based upon the characteristics of the application in which the adsorbent composition is to be used and the desired molecules to be adsorbed. The adsorbent can be selected to adsorb chemicals including, e.g., moisture, organic species (e.g., hydrocarbons, aromatics, and carbon dioxide), and combinations thereof. Preferably the adsorbent is an inorganic particulate material. Examples of useful adsorbents include natural zeolite (e.g., chabasite, gumerinite, levynite, erinite, mordenite and analcite), molecular sieves (e.g., alkali metal alumino-silicates), silica gel, silica-magnesia gel, silica-alumina gel, activated carbon, activated alumina, calcium oxide and combinations thereof. Suitable alkali metal alumino-silicate molecular sieves include, e.g., calcium, potassium, and sodium alkali metal alumino silicates. Useful molecular sieves are available under the trade designations Molsiv® Adsorbent Type 13x, and Molecular Sieve Type 3A, Type 4A and Type 5A, which are all commercially available from UOP (Illinois) and molecular sieves available from W.R. Grace (Maryland). Preferably the adsorbent exhibits a particle size of no greater than about 50 to about 100 mesh.

Appellant's Specification, page 5, lines 10-25.

Claim 18

Claim 18 is directed to an adsorbent composition that includes from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer and from 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, the absorbent includes at least one of chabasite, gumerinite, levynite, erinite, mordenite and analcite, the composition being essentially free of film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof, and the composition adsorbs at least one of moisture and volatile organic species from the

atmosphere to which it is exposed. "'[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" *KSR Int'l Co. v. Teleflex, quoting In re Kahn*, 441 F.3df 977, 988 (Fed. Cir. 2006). The mere identification in the prior art of each element in a claim is insufficient to defeat the patentability of the claim. See, e.g., *In re Kahn*, 441 F.3d. 977 (Fed. Cir. 2006). Rather, to establish a *prima facie* case of obviousness based on a combination of elements disclosed in the prior art, the Office action must articulate the basis on which a conclusion that it would be obvious to make the claimed invention is reached. *Id.* This requires that the Office action contain an explanation as to the "reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious." *In re Rouffett*, 149 F.3d 1350, 1357-59 (Fed. Cir. 1998); see also, *KSR Int'l v. Teleflex*. When an Office action does not explain the motivation or the suggestion that would have led the skilled artisan at the time of the invention to the claimed combination as a whole, it is inferred that the obviousness conclusion is based on hindsight. *Id.* It is further well established that the suggestion or motivation to make the claimed combination must be found in the prior art and must not be based on an Appellant's disclosure. See, M.P.E.P. 2142. Here, the fact that Appellant's Specification discloses that certain adsorbents are commercially available is of no moment unless there is some reason, teaching, suggestion or motivation in the prior art to include the adsorbents disclosed in Appellant's Specification in the composition of Paeglis et al. Here, there is no such reason, teaching, suggestion or motivation.

Paeglis et al. is directed, in relevant part, to compositions that are used to form roofing membranes (see, Paeglis et al., col. 7, lines 35-39). Paeglis et al. disclose that plasticizer oils are preferably included in the roofing membrane composition (see, *Id.* at col. 8, lines, 11-12). Paeglis et al. also disclose that <u>when</u> the plasticizer oils are used in large amounts, oil adsorbing mineral fillers such as kaolin clay or oil adsorbing polymers such as EPDM can be included in the formulation to reduce bleed out of plasticizer oil (see, *Id.* at col. 8, lines 27-34). However, nothing in Paeglis et al. teaches or suggests including chabasite, gumerinite, levynite, erinite, mordenite or analcite in their roofing membrane composition. In addition, nothing in Paeglis et al. teaches or suggests that

chabasite, gumerinite, levynite, erinite, mordenite or analcite are oil adsorbing. Thus, the skilled artisan would have no reason to *sua sponte* use chabasite, gumerinite, levynite, erinite, mordenite or analcite in the roofing membrane composition of Paeglis et al.

The cited passage from Appellant's Specification does not cure the deficiencies of Paeglis et al. The fact that certain adsorbents were available prior to Appellant's invention is of no moment as that fact does not provide the requisite reason, teaching, suggestion or motivation for modifying the roofing membrane composition of Paeglis et al. In addition, nothing in Paeglis et al., or the fact that certain adsorbents exist, provides the requisite reason, teaching or suggestion to include the particular moisture or volatile organic adsorbents specified in claim 18 in a roofing membrane composition, in general, or the roofing membrane composition of Paeglis et al., in particular. Nothing in the record establishes that the adsorbents recited in claim 18 would adsorb the plasticizer oil when disposed in the roofing membrane composition of Paeglis et al. as required by Paeglis et al. Thus, nothing in the record provides the requisite reason or motivation for using the adsorbents set forth in claim 18 in the Paeglis et al. the roofing membrane composition. Accordingly, the skilled artisan would have no reason to do so. Appellant submits, therefore, that the rejection of claim 18 under 35 U.S.C. § 103 over Paeglis et al. in view of a passage from Appellant's Specification has been overcome and respectfully request that it be overruled.

Claims 19 and 20

Claim 19 is directed to an adsorbent composition that includes from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer, and from 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof, the absorbent including an alkali metal alumino-silicate, the composition being essentially free of film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof, wherein the composition adsorbs at least one of moisture and volatile organic species from the atmosphere to which it is exposed. Paeglis et al. do not teach or suggest including an alkali metal alumino-silicate in their roofing membrane composition in general or including an alkali metal alumino-silicate in their roofing

membrane composition in particular. In addition, nothing in Paeglis et al. teaches or suggests that alkali metal alumino-silicates are oil adsorbing. Thus, the skilled artisan would not think to use an alkali metal alumino-silicate in the roofing membrane composition of Paeglis et al.

The passage cited from Appellant's Specification does not cure the deficiencies of Paeglis et al. The fact that certain adsorbents were available prior to Appellant's invention is of no moment as that fact does not provide the requisite reason, teaching, suggestion or motivation for modifying the roofing membrane composition of Paeglis et al. In addition, nothing in Paeglis et al., or the fact that certain adsorbents exist, provides the requisite reason, teaching or suggestion to include the alkali metal alumino-silicate specified in claim 19 in a roofing membrane composition, in general, or the roofing membrane composition of Paeglis et al., in particular. Nothing in the record establishes that an alkali metal alumino-silicate would adsorb the plasticizer oil when disposed in the roofing membrane composition of Paeglis et al. as required by Paeglis et al. Thus, nothing in the record provides the requisite reason or motivation for using an alkali metal alumino-silicate in the Paeglis et al. the roofing membrane composition. Accordingly, the skilled artisan would have no reason to do so. Appellant submits, therefore, that the rejection of claim 19 under 35 U.S.C. § 103 over Paeglis et al. in view of a passage from Appellant's Specification has been overcome and respectfully requests that it be overruled.

Claim 20 is distinguishable under 35 U.S.C. § 103 over Paeglis et al. in view of a passage from Appellant's Specification for at least the same reasons as set forth above in distinguishing claim 19.

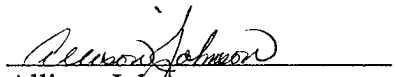
The assertions contained in the February 27th Office action that are not expressly addressed herein are hereby traversed.

The claims now pending in the application are in condition for allowance. Appellant respectfully requests that the Board overrule the rejections of record with instructions to pass the application to Issue.

Please charge any fees owing or credit any over payments made to Deposit Account No. 06-2241.

Respectfully submitted,

Date: December 10, 2007



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CLAIMS APPENDIX

1. An adsorbent composition comprising:

from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer; and

from about 20% by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof,

said composition being essentially free of a film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof,

wherein said composition adsorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed.

2. The composition of claim 1, wherein said polyalphaolefin polymer comprises a polymer derived from monomers selected from the group consisting of ethylene, propylene, butene, pentene, hexene, octene, decene, and combinations thereof.

3. The composition of claim 1, wherein said composition exhibits a melt flow time of no greater than 60 seconds at 190°C.

4. The composition of claim 1, wherein said composition exhibits a melt flow time of no greater than 15 seconds at 190°C.

5. The composition of claim 1, wherein said composition exhibits a melt flow time of less than 5 seconds at 190°C.

6. The composition of claim 1, wherein said composition comprises from about 40 % by weight to about 70 % by weight adsorbent.

7. The composition of claim 1, wherein said adsorbent comprises an adsorbent capable of adsorbing organic species.

8. The composition of claim 1, wherein said composition, when applied to a substrate and subjected to 88°C for one month, is essentially free from sag.

9. The composition of claim 1, wherein said composition passes the ASTM E1887 fog test.

10. An insulating glass assembly comprising:

a first glass substrate;

a second glass substrate;

a separator disposed between said first glass substrate and said second glass substrate; and

the composition of claim 1 in contact with said separator.

11. The assembly of claim 10, wherein said composition exhibits a melt flow time of less than 5 seconds at 190°C.

12. An absorbent composition consisting essentially of:

from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer;

from about 20 % by weight to about 70 % by weight of an adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof;

from 0 to 10% by weight tackifying resin; and

from 0 to 5% by weight antioxidant,

wherein said composition absorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed.

13. The composition of claim 12 consisting essentially of said polyalphaolefin polymer and said adsorbent.

14. An adsorbent composition comprising:

amorphous polyalphaolefin polymer; and

from about 20 % by weight to about 70 % by weight adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof,

said composition being essentially free of a film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof,

wherein said composition adsorbs at least one of moisture and volatile organic species from an atmosphere to which it is exposed.

15. An insulating glass assembly comprising:

a first glass substrate;

a second glass substrate;

a separator disposed between said first glass substrate and said second glass substrate; and

an adsorbent composition in contact with said separator, the composition comprising

from 30 % by weight to 80 % by weight amorphous polyalphaolefin polymer, and

from about 20 % by weight to about 70 % by weight adsorbent

the composition being essentially free of a film forming agent selected from the group consisting of butyl rubber, polyisobutylene and combinations thereof.

16. The insulating glass assembly of claim 15, wherein said composition comprises from 30 % by weight to 80 % by weight said amorphous polyalphaolefin polymer, said polyalphaolefin polymer comprising a polymer derived from monomers selected from the group consisting of ethylene, propylene, butene, pentene, hexene, octene, decene, and combinations thereof.

17. The adsorbent composition of claim 12 consisting of:

from 30 % by weight to 80 % by weight said amorphous polyalphaolefin polymer;

from about 20 % by weight to about 70 % by weight said adsorbent selected from the group consisting of moisture adsorbents, volatile organic adsorbents, and combinations thereof;

from 0 to 10 % by weight said tackifying resin; and

from 0 to 5 % by weight said antioxidant.

18. The adsorbent composition of claim 1, wherein said adsorbent comprises at least one of chabasite, gumerinite, levynite, erinite, mordenite and analcite.

19. The adsorbent composition of claim 1, wherein said adsorbent comprises an alkali metal alumino-silicate.

20. The adsorbent composition of claim 1, wherein said adsorbent comprises at least one of calcium alumino-silicate, potassium alumino-silicate and sodium alumino-silicate.

EVIDENCE APPENDIX
(NONE)

RELATED PROCEEDINGS APPENDIX
(NONE)